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RESEARCH ARTICLE

A checklist and areography of Buprestidae, Vesperidae and Cerambycidae (Coleoptera) in Abruzzo, Lazio and Molise National Park, Italy

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Abstract

The species of Buprestidae, Vesperidae and Cerambycidae in Abruzzo, Lazio and Molise National Park in Italy were studied based on literature data and original material. As a result, a list of 128 taxa was assembled: 49 buprestids, one vesperid and 78 cerambycids. These taxa belong to 21 areographical categories combined in seven complexes. The European complex occupies a dominant position (39.1%), followed by the Palaearctic (24.2%), Mediterranean (14.1%), Eurosiberian (10.2%), European-Iranoturanian (6.3%), Endemic (3.9%), and Cosmopolitan and Holarctic (2.3%) complexes. The Park has four endemic and one subendemic taxa.

Keywords

Abruzzo, Lazio and Molise National Park, endemics, jewel beetles, longhorn beetles.

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PENSOFT

Introduction

Since 1922, the National Park Abruzo, Lazio and Molise has been founded as a protected area under the name Abruzzo N.P. It is the oldest National Park in Italy located exactly in the centre of the Italian Peninsula, a particularly rich landscape, whose historical, geographical, climatic and environmental complexity is perhaps unique in Earth history. The Park's area is about 500 km^2, surrounded by a buffer zone of 800 km^2. The greatest part of this territory is mountainous (the highest peak is 2,249 m a.s.l.). Specific relief, oreographic patterns as well as the large valleys of the rivers Sangro, Giovenco and Melfa provide habitats for a great variety of natural flora and fauna. The predominant tree species in the Park is the common beech (*Fagus sylvatica*) which covers most of the area, generally between 900 and 1800 m a.s.l. At lower altitudes, some oak species (*Quercus* spp.) are distributed. The Austrian pine (*Pinus nigra*), dwarf mountain pine (*Pinus mugo*) and silver birch (*Betula pendula*) are other notable trees of the Park. The highest regions are covered by grasslands.

The first entomological research, carried on in Abruzzo before the foundation of the National Park (1922), goes back to Raffray (1914) on Pselaphidae (Coleoptera). A year later, Festa (1915) published the outcome of a research on different insect orders of the upper Sangro valley. Later, Luigioni (1931, 1933) started in-depth studies on beetles and some other insect orders. Since then, many other entomological studies have been conducted: e.g., the researches of Cerruti (1940), particularly on Staphylinidae (Coleoptera); the study on Diptera (Saccà and Rivosecchi 1958); the investigations on Plecoptera and Odonata (Consiglio 1952, 1955a, 1955b). Grandi (1958) published the results of an entomological expedition in the National Park during which insects from different orders were collected. In 1957, a group of Roman entomologists (Giovani Papini, Enrico Migliaccio and Franco Tassi) started a systematic investigation of the entomofauna, in cooperation with the Park Agency. In 1993, the Abruzzo National Park started the Biodiversity Project, with the aim to make an inventory of all the species living in the Park. Two checklists regarding Coleoptera have been published so far: Vigna Taglianti (1995) on Carabidae and Carpaneto et al. (1996) on Lamellicornia. In addition, Vigna Taglianti (1994) describes a new species of ground beetle, *Ocys tassii*. Recently, new taxa and distributional data of endemic and threatened buprestid and cerambycid species in Abruzo, Lazio and Molise National Park have been reported (Sakalian et al. 2020). New papers on the ecology, ethology and distribution of xylophagous beetles are in preparation by Franco Tassi and colleagues.

The aim of this study is to summarise the published data on the jewel and longhorn beetles in Abruzo, Lazio and Molise National Park, to report additionally collected material and published records not mentioned in Sakalian et al. (2020) and to make a zoogeographical analysis of the buprestid and cerambycid fauna in the National Park.

Material and methods

Since 1957, Franco Tassi and Enrico Migliaccio have collected many different coleopteran species in Abruzo, Lazio and Molise National Park including, several jewel and longhorn beetles. During the collecting trips of Bulgarian entomologists in the National Park (Mario Langourov and Stoyan Beshkov in 2001 and Toshko Ljubomirov in 2011), some buprestids and cerambycids were also found.

The following traditional methods were used for collecting: hand collecting on flowers and food plants; collecting using the entomological net on grasses and bushes; shaking of tree branches and crowns and collecting the fallen insects; collecting with Malaise traps.

The taxonomic arrangement and zoogeographical characterization were made on the basis of system and recent taxa distribution of buprestids (Kubáň et al. 2016) and cerambycids (Danilevsky 2021). According to Sakalian (1994), Georgiev and Hubenov (2006) and Sakalian and Langourov (2007) conceptions, the established taxa are arranged in 21 chorotypes (areographic categories).

The collected specimens were deposited in the following collections: Enrico Migliaccio (EM); Franco Tassi (FT); Institute of Biodiversity and Ecosistem Research, Bulgarian Academy of Sciences (IBER); Istituto Nazionale Entomologia (Italy) (INE); Umberto Pessolano (UP); Pierpaolo Rapuzzi (PR).

Results

Overall, 128 taxa from three families were identified so far in Abruzzo, Lazio and Molise National Park. (49 Buprestidae, one Vesperidae and 78 Cerambycidae).

Family Buprestidae Leach, 1815

Subfamily Polycestinae Lacordaire, 1857

Tribe Acmaeoderini Kerremans, 1893

***Acmaeodera* (*Acmaeodera*) *pilosellae pilosellae* (Bonelli, 1812)**
Colli Nascosi (Luigioni 1933); Scanno, 1000 m a.s.l., 29.06.1996, 1 ex., leg. E. Migliaccio (EM).
Chorotype: Transmediterranean.

***Acmaeodera* (*Palaeotethya*) *bipunctata bipunctata* (Olivier, 1790)**
Roccaraso (Gobbi 1970).
Chorotype: Northeast Mediterranean.

***Acmaeoderella* (*Acmaeoderella*) *discoida* (Fabricius, 1787)**
Val Fondillo (Curletti 1994).
Chorotype: Southwest Mediterranean.

***Acmaeoderella* (*Acmaeoderella*) *circassica* Reitter, 1890**
NE Casali Santa Maria Maddalena, 41°58'59"N, 13°45'27"E (Sakalian et al. 2020).
Chorotype: Pontomediterranean.

***Acmaeoderella* (*Carininota*) *flavofasciata flavofasciata* (Piller and Mitterpacher 1783)**
Val Fondillo, colle dell'oro (Luigioni 1933); Pratorosso, Pescasseroli, M. Tranquillo, Colle Licco; rive del Sangro, Val Resione, Vallone Pesco di Lordo (Tassi 1962a); Pescasseroli, July 1957, 1 ex., leg. S. Cafaro; Pratorosso, 1536 m a.s.l., 20.07.1995, 1 ex., leg. E. Migliaccio (EM); La Camosciara, 41°46'35"N, 13°54'28"E, 1120 m a.s.l., 28.06.2011, 2 ex.; NE Casali Santa Maria Maddalena, 41°58'59"N, 13°45'27"E, 1290 m a.s.l., 22.06.2011, 1 ex.; SW Aschi Alto vill., 41°57'53"N, 13°43'53"E, 1110 m a.s.l., 30.06.2011, 1 ex.; S Ortona dei Marsi vill., 41°59'34"N, 13°44'01"E 910 m a.s.l., 23.06.2011, 2 ex., leg. T. Ljubomirov (IBER).
Chorotype: Southwest Palaearctic.

Tribe Ptosimini Kerremans, 1902

***Ptosima undecimmaculata undecimmaculata* (Herbst, 1784)**
Sperone (Sakalian et al. 2020).
Chorotype: Euromediterranean.

Subfamily Chrysochroinae Laporte, 1835

Tribe Dicercini Gistel, 1848

***Capnodis cariosa cariosa* (Pallas, 1776)**
San Sebastiano dei Marsi (Sakalian et al. 2020).
Chorotype: Pontomediterranean.

***Capnodis tenebricosa tenebricosa* (Olivier, 1790)**
S. Sebastiano dei Marsi (Curletti 1994); Ortona dei Marsi, 1000 m a.s.l., July 2011, 2 ex., leg. E. Migliaccio (EM).
Chorotype: Southwest Palaearctic.

***Capnodis tenebrionis* (Linnaeus, 1760)**
Maiella, Trasacco (Curletti 1994), N Aschi Alto vill., 41°58'59"N, 13°44'11"E, 970 m a.s.l., 23.06.2011, 2 ex., leg. T. Ljubomirov (IBER).
Chorotype: Southwest Palaearctic.

***Dicerca* (*Hemidicerca*) *aenea aenea* (Linnaeus, 1760)**
National Park (Curletti 1994).
Chorotype: West Palaearctic.

***Dicerca* (*Hemidicerca*) *alni* (Fischer, 1824)**
Pratorosso, M. Tranquillo, Vallone Pesco di Lordo (Tassi 1962a).
Chorotype: Euromediterranean.

Subfamily Buprestinae Leach, 1815

Tribe Anthaxiini Gory and Laporte, 1837

***Anthaxia* (*Anthaxia*) *chevrieri* Gory and Laporte, 1839**
La Cicerana (Tassi 1964b); S San Sebastiano dei Marsi vill., 41°56'02"N, 13°45'42"E, 1190 m a.s.l., 26.06.2011, 1 ex.; W Mezzana peak, 41°59'24"N, 13°45'29"E, 1350 m a.s.l., 24.06.2011, 1 ex.; N Casali Santa Maria Maddalena, 41°58'50"N, 13°45'24"E, 1220 m a.s.l., 22.06.2011, 1 ex.; 41°59'07"N, 13°45'05"E, 1080 m a.s.l., 24.06.2011, 5 ex., leg. T. Ljubomirov (IBER).
Chorotype: European.

***Anthaxia* (*Anthaxia*) *fulgurans* (Schrank, 1789)**
Val Camosciara (Tassi 1964b).
Chorotype: European.

***Anthaxia* (*Anthaxia*) *hackeri* Frivaldszky, 1884**
Fucino (Tassi 1980); Cerchio (Curletti 1994)
Chorotype: Easteuropean-Anatolian.

***Anthaxia* (*Anthaxia*) *lucens* Küster, 1852**
Ortona dei Marsi; N Aschi Alto vill., 41°58'47"N, 13°44'10"E; SE Cesoli vill., 42°00'36"N, 13°43'32"E (Sakalian et al. 2020).
Chorotype: Northeast Mediterranen.

***Anthaxia* (*Anthaxia*) *nitidula* (Linnaeus, 1758)**
M. Palombo (Luigioni 1933); Colli Nascosi (Tassi 1962a); Feudo Intramonti Reserve - Casone Antonucci Place, near Sambuco Spring, 1150 m a.s.l., 06–26.06.2001; 26.06–27.07.2001, 2 ex., leg. P. Tollis (Malaise trap) (EM); SW Aschi Alto vill., 41°57'53"N, 13°43'53"E, 1110 m a.s.l., 30.06.2011, 1 ex.; N Villetta Barrèa, 41°48'15"N, 13°56'09"E, 1390 m a.s.l., 25.06.2011, 1 ex., leg. E. Migliaccio; SE Casali Santa Maria Maddalena, 41°59'19"N, 13°44'18"E, 910 m a.s.l., 24.06.2011, 1 ex.; S Cesoli vill., 42°00'19"N, 13°43'08"E, 850 m a.s.l., 27.06.2011, 2 ex., leg. T. Ljubomirov (IBER).
Chorotype: European.

***Anthaxia* (*Anthaxia*) *semicuprea* Küster, 1851**
Val Camosciara (Tassi 1962a); Val Fondillo (Curletti 1994); Valle dell'inferno, Pescasseroli, Pescocostanzo (Curletti 1994); Pescocostanzo: bosco S. Antonio, 03.08.1990, 1 ex., leg. E. Migliaccio; Feudo Intramonti, 26.06–27.07.2001, 1 ex., leg. M. Langourov; Feudo Intramonti Reserve - Casone Antonucci Place, near Sambuco Spring, 1150 m a.s.l., 06–26.06.2001; 26.06–27.07.2001, 2 ex., leg. P. Tollis (Malaise trap) (EM); S Bisegna vill., 41°53'03"N, 13°45'44"E, 1310 m a.s.l., 19.06.2011, 1 ex.; S Ortona dei Marsi vill., 41°59'34"N, 13°44'01"E, 910 m a.s.l., 21.06.2011, 1ex.; S San Sebastiano dei Marsi vill., 1190 m a.s.l., 41°56'02"N, 13°45'42"E, 1190 m a.s.l., 26.06.2011, 1 ex., leg. T. Ljubomirov (IBER).
Chorotype: European-Anatolian.

***Anthaxia* (*Anthaxia*) *thalassophila thalassophila* Abeille de Perrin, 1900**
Val Fondillo (Tassi 1962a); Val Fondillo; Scanno (Curletti 1994); Picinisco, June 1968, 2 ex., leg. Eitschberger (EM); S Introdaqua vill., 42°00'03"N, 13°54'03"E, 630 m a.s.l., 20.06.2011, 2 ex.; S Ortona dei Marsi vill., 41°59'34"N, 13°44'01"E, 910 m a.s.l., 21.06.2011, 1 ex.; NE Casali Santa Maria Maddalena, 41°58'59"N, 13°45'27"E, 1290 m a.s.l., 22.06.2011, 1 ex.; S Introdaqua vill., 42°00'03"N, 13°54'03"E, 630 m a.s.l., 20.06.2011, 2 ex.; S Cesoli vill., 42°00'19"N, 13°43'08"E, 850 m a.s.l., 27.06.2011, 12 ex., leg. T. Ljubomirov (IBER).
Chorotype: Northmiddle Mediterranean.

***Anthaxia* (*Cratomerus*) *hungarica hungarica* (Scopoli, 1772)**
Pizzone; Scanno: Frattura; NE Civitella peak, 41°59'25"N, 13°43'03"E; S Introdaqua vill., 42°00'03"N, 13°54'03"E; S Cesoli vill., 42°00'19"N, 13°43'08"E (Sakalian et al. 2020).
Chorotype: Euromediterranean.

***Anthaxia* (*Haplanthaxia*) *scylla* Levey, 1985**
Scanno (Sakalian et al. 2020).
Chorotype: Subendemic (Italy and Malta).

***Anthaxia* (*Haplanthaxia*) *cichorii* (Olivier, 1790)**
N Castel di Sangro, 41°48'14"N, 14°06'23"E; S Ortona dei Marsi vill., 41°59'34"N, 13°44'01"E; N Aschi Alto vill., 41°58'47"N, 13°44'10"E (Sakalian et al. 2020).
Chorotype: European-Iranoturanian.

***Anthaxia* (*Haplanthaxia*) *millefolii polychloros* Abeille de Perrin, 1894**
Scanno; N Aschi Alto vill., 41°58'47"N, 13°44'10"E; S Cesoli vill., 42°00'19"N, 13°43'08"E (Sakalian et al. 2020).
Chorotype: West European.

***Anthaxia* (*Melanthaxia*) *godeti* Gory and Laporte, 1839**
M. Mattone, Balzo della Chiesa (Tassi 1964a); Val Camosciara, Villetta Barrea (Curletti 1994).
Chorotype: Euromediterranean.

***Anthaxia* (*Melanthaxia*) *helvetica appenina* Obenberger, 1938**
SW Lago di Barrèa lake, 41°45'39"N, 13°57'38"E (Sakalian et al. 2020).
Chorotype: Endemic.

***Anthaxia* (*Melanthaxia*) *istriana* Rosenhauer, 1847**
Macchiarvana (Tassi 1962a); Roccaraso (Curletti 1994); Valle Fondillo, 41°45'32"N, 13°51'36"E, 1140 m a.s.l., 18.06.2011, 1 ex., leg. T. Ljubomirov (IBER).
Chorotype: European-Anatolian.

***Anthaxia* (*Melanthaxia*) *liae* Gobbi, 1983**
Scanno; La Camosciara, 41°46'35"N, 13°54'28"E; S Introdaqua vill., 42°00'03"N, 13°54'03"E; NE Casali Santa Maria Maddalena, 41°58'59"N, 13°45'27"E; Valle Fondillo, 41°45'10"N, 13°52'00"E; S Introdaqua vill., 42°00'03"N, 13°54'03"E; Civitella Alfedena, 41°46'04"N, 13°56'40"E; N Casali Santa Maria Maddalena, 41°59'07"N, 13°45'05"E (Sakalian et al. 2020).
Chorotype: Endemic.

Tribe Buprestini Leach, 1815

***Buprestis* (*Ancylocheira*) *cupressi* Germar 1836**
Maiella (Tassi 1980); Valle del Sangro (Curletti 1994).
Chorotype: East Mediterranean.

***Buprestis* (*Ancylocheira*) *novemmaculata novemmaculata* Linnaeus, 1767**
Scanno (Sakalian et al. 2020).
Chorotype: Transpalaearctic.

***Buprestis* (*Ancylocheira*) *rustica rustica* Linnaeus, 1758**
National Park (Curletti 1994).
Chorotype: Eurosiberian.

***Buprestis (Buprestis) octoguttata octoguttata* Linnaeus, 1758**
Civitella Alfedena (Sakalian et al. 2020).
Chorotype: West Eurosiberian.

Tribe Chrysobothrini Gory and Laporte, 1938

***Chrysobothris* (*Chrysobothris*) *affinis affinis* (Fabricius, 1794)**
Pratorosso, Pescasseroli, M. Tranquillo, M. Panico, Vallone Pesco di Lordo (Tassi 1962a); Val Fondillo, Roccaraso (Curletti 1994); Val Fondillo, 10.07.1957, 1 ex., leg. F. Cassola; Pescasseroli July 1957, 4 ex., leg. S. Cafaro; Val Fondillo, July 1978, 1 ex., leg. E. Migliaccio; Scanno, 29.06.1996, 4 ex., leg. E. Migliaccio; Feudo Intramonti Reserve - Casone Antonucci Place, near Sambuco Spring, 1150 m a.s.l., 06–26.06.2001, 2 ex., leg. P. Tollis (Malaise trap); Vallone Pesco di Lordo, Ciamamaruca Place, 1560 m a.s.l., 26.06–28.07.2001, leg. P. Tollis (Malaise trap) (EM).
Chorotype: European-Iranian.

***Chrysobothris* (*Chrysobothris*) *solieri* Laporte and Gory, 1837**
N Aschi Alto vill., 41°58'59"N, 13°44'11"E (Sakalian et al. 2020).
Chorotype: Sothwest Palaearctic.

Tribe Melanophilini Bedel, 1921

***Melanophila acuminata* (De Geer, 1774)**
Pescasseroli (Sakalian et al. 2020).
Chorotype: Transholarctic.

***Phaenops cyanea* (Fabricius, 1775)**
Scanno (Sakalian et al. 2020).
Chorotype: Transpalaearctic.

Subfamily Agrilinae Laporte, 1835

Tribe Agrilini Laporte, 1835

***Agrilus angustulus angustulus* (Illiger, 1803)**
Prato della Corte, M. Palombo (Luigioni 1933); Pescocostanzo (Curletti 1994); Feudo Intramonti, 1150 m a.s.l., 26.06–27.07.2001, 2 ex., leg. M. Langourov; Feudo Intramonti Reserve - Casone Antonucci Place, near Sangro River, 1000 m a.s.l., 26.06–27.07.2001, leg. P. Tollis (Malaise trap); Feudo Intramonti Reserve - Casone Antonucci Place, near Sambuco Spring, 1150 m a.s.l., 06–26.06.2001, 2 ex.; 26.06–27.07.2001, 3 ex., leg. P. Tollis (Malaise trap) (EM); N Casali Santa Maria Maddalena, 41°59'07"N, 13°45'05"E, 1080 m a.s.l., 24.06.2011, 1 ex., leg. T. Ljubomirov (IBER).
Chorotype: Euromediterranean.

***Agrilus biguttatus* (Fabricius, 1777)**
Assergi, Collemeluccio (Curletti 1994); Feudo Intramonti Reserve - Casone Antonucci Place, near Sambuco Spring, 1150 m a.s.l., 06–26.06.2001, leg. P. Tollis (Malaise trap) (EM).
Chorotype: Euromediterranean.

***Agrilus cuprescens cuprescens* Ménétriés, 1832**
Lago di Barrea (Tassi 1962a); Cerchio (Curletti 1994); Feudo Intramonti Reserve - Casone Antonucci Place, near Sangro River, 1000 m a.s.l., 06–26.06.2001, leg. P. Tollis (Malaise trap); Vallone Pesco di Lordo, Ciamamaruca Place, 1560 m a.s.l., 28.07–21.08.2001, leg. M. Langourov and S. Beshkov (EM).
Chorotype: Transpalaearctic.

***Agrilus cyanescens cyanescens* Ratzeburg, 1837**
Villetta Barrea (Curletti 1994); Feudo Intramonti Reserve - Casone Antonucci Place, near Sambuco Spring, 1150 m a.s.l., 26.06–27.07.2001, leg. P. Tollis (Malaise trap) (EM).
Chorotype: Transpalaearctic.

***Agrilus graminis* Kiesenwetter, 1857**
Pescocostanzo (Tassi 1962b); National Park (Curletti 1994).
Chorotype: Euromediterranean.

***Agrilus hyperici* (Creutzer, 1799)**
Cerchio (Curletti 1994).
Chorotype: Euromediterranean.

***Agrilus obscuricollis* Kiesenwetter, 1857**
S Ortona dei Marsi vill., 41°59'34"N, 13°44'01"E (Sakalian et al. 2020).
Chorotype: Southwest Palaearctic.

***Agrilus olvicolor* Kiesenwetter, 1857**
SE Cesoli vill., 42°00'36"N, 13°43'32"E, 920 m a.s.l., 27.06.2011, 5 ex., leg. T. Ljubomirov (IBER).
Chorotype: European.

***Agrilus sulcicollis* Lacordaire, 1835**
Pescasseroli (Luigioni 1931); S Rocca Pia vill., 41°54'51"N, 13°58'56"E, 1290 m a.s.l., 20.06.2011, 1 ex.; NE Ortona dei Marsi vill., 42°00'44"N, 13°43'40"E, 930 m a.s.l., 26.06.2011, 1 ex., leg. T. Ljubomirov (IBER).
Chorotype: West Palaearctic.

***Agrilus suvorovi* Obenberger, 1935**
National Park (Luigioni 1931); Pescasseroli (Curletti 1994); Scanno: Passo Godi, 1450 m a.s.l., 30.06.1996, 1 ex., leg. E. Migliaccio (EM).
Chorotype: Transpalaearctic.

***Agrilus viridicaerulans rubi* Schaefer, 1937**
Castel di Sangro (Tassi 1966); Forca d'Acero (Curletti 1994).
Chorotype: Euromediterranean.

***Agrilus viridis* (Linnaeus, 1758)**
M. La Rocca, M.Palombo, Terraegna (Luigioni 1933); Pratorosso, Colli Nascosi, Val Fondillo (Tassi 1962a); Pescocostanzo, Roccaraso (Curletti 1994); Feudo Intramonti Reserve - Casone Antonucci Place, near Sangro River, 1000 m a.s.l., 26.06–27.07.2001, leg. P. Tollis (Malaise trap) (EM).
Chorotype: Transpalaearctic.

Tribe Coraebini Bedel, 1921

***Coroebus elatus* (Fabricius, 1787)**
M. Mattone (Tassi 1964b); Rocca di mezzo, Scanno (Curletti 1994); Vallone Pesco di Lordo, 1560 m a.s.l., 28.07–21.08.2002, 1 ex., leg. M. Langourov; Feudo Intramonti Reserve - Casone Antonucci Place, near Sangro River, 1000 m a.s.l., 26.06–27.07.2001, 2 ex., leg. P. Tollis (Malaise trap); Feudo Intramonti Reserve - Casone Antonucci Place, near Sambuco Spring, 1150 m a.s.l., 26.06–27.07.2001, 4 ex., leg. P. Tollis (Malaise trap); 27.07–20.08.2001, 5 ex., leg. M. Langourov and S. Beshkov (EM); N Villetta Barrèa, 41°48'15"N, 13°56'09"E, 1390 m a.s.l., 25.06.2011, 2 ex.; La Camosciara, 41°46'35"N, 13°54'28"E, 1120 m a.s.l., 28.06.2011, 1 ex., leg. E. Migliaccio (IBER).
Chorotype: West Palaearctic.

***Coroebus rubi* (Linnaeus, 1767)**
Cerchio, Pescasseroli (Curletti 1994).
Chorotype: Euromediterranean.

Tribe Tracheini Laporte, 1835

***Trachys minutus minutus* (Linnaeus, 1758)**
Val Fondillo, Prato della Corte (Luigioni 1933); M. Panico (Tassi 1962a).
Chorotype: Transpalaearctic.

Family Vesperidae Mulsant, 1839

Subfamily Vesperinae Mulsant, 1839

Tribe Vesperini Mulsant, 1839

***Vesperus luridus* (Rossi, 1794)**
Monte Sirente (Sama 1988).
Chorotype: North Mediterranean.

Family Cerambycidae Latreille, 1802

Subfamily Prioninae Latreille, 1802

Tribe Prionini Latreille, 1802

***Prionus coriarius* (Linnaeus, 1758)**
Roccaraso; La Cicerana (Sakalian et al. 2020).
Chorotype: West Palaearctic.

Tribe Aegosomatini J. Thomson, 1861

***Aegosoma scabricorne* (Scopoli, 1763)**
Pescasseroli; Opi; Ortona dei Marsi (Sakalian et al. 2020).
Chorotype: European-Iranian.

Subfamily Lepturinae Latreille, 1802

Tribe Lepturini Latreille, 1802

***Grammoptera ruficornis ruficornis* (Fabricius, 1781)**
Villetta Barrea (Parenti 1964).
Chorotype: European-Anatolian.

***Leptura* (*Leptura*) *aurulenta* Fabricius, 1793**
Monte Tranquillo, Val Fondillo (Luigioni 1931); Pratorosso, 10.08.1960, 1 ex., leg. A. Parenti (UP); Pratorosso; Monte Tranquillo (Parenti 1962); Rif. Pratorosso; Monte Tranquillo (Sama 1988); Val Fondillo, 18.07.1995, 1 ex., leg. E. Migliaccio (EM).
Chorotype: Euromediterranean.

***Pseudovadonia livida livida* (Fabricius, 1776)**
Fonte Puzza; Macchia Arvana (Luigioni 1933); Bosco S. Antonio (Tassi 1961); Val Camosciara; Serrone; Rive Fiume Sangro (Parenti 1962); Pescasseroli; Monte Morrone (Sama 1988).
Chorotype: European.

***Stenurella* (*Priscostenurella*) *bifasciata bifasciata* (O. F. Müller, 1776)**
Pescasseroli (Luigioni 1931); Serrone (Parenti 1962); Scanno (Sama 1988).
Chorotype: West Eurosiberian.

***Stictoleptura* (*Melanoleptura*) *scutellata scutellata* (Fabricius, 1781)**
Pescasseroli (Luigioni 1931); Opi (Sama 1988).
Chorotype: European.

***Stictoleptura* (*Paracorymbia*) *fulva* (De Geer, 1775)**
Pescasseroli (Luigioni 1931); Camosciara (Tassi 1961); Serrone (Parenti 1962); Monte Gloria d'Orlando; Barrea (Sama 1988).
Chorotype: European-Anatolian.

***Stictoleptura* (*Stictoleptura*) *cordigera cordigera* (Fuessly, 1775)**
Bosco S. Antonio (Tassi 1961) Roccadimezzo; Maiella; Monte Sirente (Sama 1988).
Chorotype: European-Iranian.

Tribe Oxymirini Danilevsky, 1997

***Dinoptera collaris* (Linnaeus, 1758)**
Val Camosciara (Parenti 1962); Pescasseroli, May 1963, 1 ex., leg. L. Costrini (UP); Val Cavuto; Monte Greco (Sama 1988).
Chorotype: Eurosiberian.

***Rhagium* (*Megarhagium*) *mordax* (De Geer, 1775)**
Monte Marsicano, Val di Corte (Tassi 1961); Val Camosciara; Pratorosso; Bosco Schiappito; Vallone Pesco di Lordo (Parenti 1962); Val Fondillo, 01.06.1964, 1 ex., leg. G. Papini (EM).
Chorotype: Eurosiberian.

***Rhagium* (*Megarhagium*) *sycophanta* (Schrank, 1781)**
Roccaraso (Sama 1988).
Chorotype: West Eurosiberian.

***Stenocorus* (*Stenocorus*) *meridianus* (Linnaeus, 1758)**
Between Villetta Barrea and fork for Val Fondillo (Parenti 1964).
Chorotype: Eurosiberian.

Tribe Rhamnusiini Sama, 2009

***Rhamnusium bicolor bicolor* (Schrank, 1781)**
Fonte di Schiappito (Luigioni 1933); Barrea; Cerchio (Sama 1988).
Chorotype: European.

Subfamily Necydalinae Latreille, 1825

***Necydalis* (*Necydalis*) *ulmi* (Chevrolat, 1838)**
Cerchioi; Ortona dei Marsi (Sakalian et al. 2020).
Chorotype: European-Iranian.

Subfamily Spondylidinae Audinet-Serville, 1832

Tribe Asemini J. Thomson, 1861

***Arhopalus ferus* (Mulsant, 1839)**
Abruzzo National Park (Grandi 1958); Roccaraso (Parenti 1966); Ortona dei Marsi, 1000 m a.s.l., July–August 2010; September 2012, 4 ex., leg. E. Migliaccio (EM).
Chorotype: Transpalaearctic.

Tribe Saphanini Gistel, 1848

***Saphanus piceus piceus* (Laicharting, 1784)**
Monte Palombo (Luigioni 1931); Monte Tranquillo, Pratorosso (Parenti 1962); Monte Tranquillo, 1500 m a.s.l., 04.07.1960, 1 ex., leg. E. Migliaccio (EM).
Chorotype: European.

Subfamily Cerambycinae Latreille, 1802

Tribe Anaglyptini Lacordaire, 1868

***Anaglyptus* (*Anaglyptus*) *gibbosus* (Fabricius, 1787)**
Pescasseroli; Prato di Corte; Barrea; Barrea: Monte Marsicano (Valle Orsara) (Sakalian et al. 2020).
Chorotype: Transmediterranean.

***Anaglyptus* (*Anaglyptus*) *mysticus* (Linnaeus, 1758)**
Cesa Crivello; Bosco Schiappito; Bosco Schiappito: Val di Corte Monte Palombo; Abruzzo National Park (Sakalian et al. 2020).
Chorotype: European-Anatolian.

Tribe Brachypteromatini Sama, 2008

***Dolocerus reichii* Mulsant, 1862**
Pescasseroli (Luigioni 1931).
Chorotype: Northeast Mediterranean.

Tribe Callichromatini Swainson and Shuckard, 1840

***Aromia moschata moschata* (Linnaeus, 1758)**
Abruzzo National Park; Val Camosciara (Sakalian et al. 2020).
Chorotype: Eurosiberian.

Tribe Callidiini Kirby, 1837

***Phymatodes* (*Phymatodes*) *testaceus* (Linnaeus, 1758)**
Forca d'Acero: Macchia Arvana; Pescasseroli; Alfedena; Scanno; Ortona dei Marsi (Sakalian et al. 2020).
Chorotype: Transholarctic.

***Phymatodes* (*Poecilium*) *alni alni* (Linnaeus, 1767)**
Pescasseroli, Fonte della Difesa (Luigioni 1931); Val Fondillo, 14.05.1994, 1 ex., leg. E. Migliaccio (EM).
Chorotype: European-Anatolian.

***Pyrrhidium sanguineum* (Linnaeus, 1758)**
Pescasseroli; Ortona dei Marsi (Sakalian et al. 2020).
Chorotype: Euromediterranean.

***Ropalopus* (*Ropalopus*) *clavipes* (Fabricius, 1775)**
Pescasseroli (Sakalian et al. 2020).
Chorotype: European-Iranian.

***Ropalopus* (*Ropalopus*) *ungaricus* (Herbst, 1784)**
Bosco S. Antonio; Alfedena; Roccaraso; Rocca di Mezzo; Rocca di Cambio; Gioia Vecchio; Roccaraso; Passo Godi (Sakalian et al. 2020).
Chorotype: Euromediterranean.

Tribe Cerambycini Latreille, 1802

***Cerambyx* (*Cerambyx*) *cerdo cerdo* Linnaeus, 1758**
Caramanico (Sakalian et al. 2020).
Chorotype: Euromediterranean.

***Cerambyx* (*Microcerambyx*) *scopolii scopolii* Fuessly, 1775**
Abruzzo National Park; Vallone Pesco di Lordo; Valle Iannanghera; Valle Schiappito; Pescasseroli (Sakalian et al. 2020).
Chorotype: European-Anatolian.

Tribe Clytini Mulsant, 1839

***Chlorophorus* (*Crassofasciatus*) *trifasciatus* (Fabricius, 1781)**
La Cicerana (Parenti 1964); Scanno (Sama 1988); Bisegna, 1200 m a.s.l., 24.07.1994; Ortona dei Marsi, 1000 m a.s.l., June 2012., 2 ex., leg. E. Migliaccio (EM).
Chorotype: Transmediterranean.

***Chlorophorus* (*Humeromaculatus*) *figuratus* (Scopoli, 1763)**
Val Fondillo; Valle Camosciara; Roccaraso; Pescasseroli (Sakalian et al. 2020).
Chorotype: West Eurosiberian.

***Chlorophorus* (*Immaculatus*) *glabromaculatus glabromaculatus* (Goeze, 1777)**
Pescasseroli; Abruzzo National Park (Sakalian et al. 2020).
Chorotype: European.

***Chlorophorus* (*Immaculatus*) *varius varius* (O. F. Muller, 1766)**
Pescasseroli; Val di Corte (Sakalian et al. 2020).
Chorotype: West Eurosiberian.

***Chlorophorus* (*Perderomaculatus*) *sartor* (O. F. Müller, 1766)**
Abruzzo National Park; Colle Licco: valley of Sangro; Ortona dei Marsi (Sakalian et al. 2020).
Chorotype: West Palaearctic.

***Clytus* (*Clytus*) *arietis arietis* (Linnaeus, 1758)**
Colle della Regina; Campomizzo; Terraegna; Val Fondillo; Valle Iannanghera; Camosciare; Abruzzo National Park; Scanno (Sakalian et al. 2020).
Chorotype: European-Anatolian.

***Clytus* (*Clytus*) *rhamni rhamni* Germar, 1817**
Ortona dei Marsi (Sakalian et al. 2020).
Chorotype: Northeast Mediterranean.

***Echinocerus floralis* (Pallas, 1773)**
Abruzzo National Park (Grandi 1958); Serrone (Parenti 1962); Tagliacozzo, July 1990 – July 1991, 4 ex., leg. S. Cafaro; Camosciara, 28.06.2011, 1 ex., leg. E. Migliaccio (EM).
Chorotype: Transpalaearctic.

***Plagionotus arcuatus arcuatus* (Linnaeus, 1758)**
Pescasseroli; Scanno (Sakalian et al. 2020).
Chorotype: Euromediterranean.

***Xylotrechus* (*Rusticoclytus*) *rusticus* (Linnaeus, 1758)**
Schiena Cavallo; Balzo del Caprio; Monte Palombo; Monte La Rocca (Sakalian et al. 2020).
Chorotype: Transpalaearctic.

***Xylotrechus* (*Xylotrechus*) *arvicola arvicola* (Olivier, 1795)**
Abruzzo National Park; Piani di Pezza; Rivisondoli (Sakalian et al. 2020).
Chorotype: Euromediterranean.

Tribe Deilini Fairmaire, 1864
***Deilus fugax* (Olivier, 1790)**
Barrea; Pescasseroli; Rivisondoli; Cocullo (Sakalian et al. 2020).
Chorotype: Euromediterranean.

Tribe Graciliini Mulsant, 1839

***Axinopalpis gracilis gracilis* (Krynicki, 1832)**
Cerchio (Sakalian et al. 2020).
Chorotype: European-Iranian.

***Gracilia minuta* (Fabricius, 1781)**
Fontana della Difesa; Cerchio (Sakalian et al. 2020).
Chorotype: Transpalaearctic.

Tribe Rosaliini Fairmaire, 1864

***Rosalia* (*Rosalia*) *alpina alpina* (Linnaeus, 1758)**
Pescasseroli; Cesa Crivello; Monte Palombo; Pratorosso; Val Camosciara; Val Fondillo; Val Camosciara; Cicerana (Sakalian et al. 2020).
Chorotype: European-Anatolian.

Tribe Hesperophanini Mulsant, 1839

***Hesperophanes sericeus* (Fabricius, 1787)**
Abruzzo National Park (Sakalian et al. 2020).
Chorotype: Sothwest Palaearctic.

***Trichoferus holosericeus* (Rossi, 1790)**
Barrea (Parenti 1964); Cerchio; Barrea (Sama 1988); Ortona dei Marsi, 1000 m a.s.l., August 2012, 1 ex., leg. E. Migliaccio (EM).
Chorotype: Euromediterranean.

Tribe Hylotrupini Zagajkevitch, 1991

***Hylotrupes bajulus* (Linnaeus, 1758)**
Abruzzo National Park; Pescasseroli; Castello Favone; Scanno; Lago di Barrea (Sakalian et al. 2020).
Chorotype: Cosmopolitian.

Tribe Molorchini Gistel, 1848

***Molorchus* (*Molorchus*) *umbellatarus umbellatarus* (Schreber, 1759)**
Val Camosciara (Parenti 1962); Prato La Corte (Sama 1988).
Chorotype: European-Anatolian.

Tribe Purpuricenini J. Thomson, 1861

***Purpuricenus kaehleri kaehleri* (Linnaeus, 1758)**
Bussi; Pescasseroli (Sakalian et al. 2020).
Chorotype: European-Anatolian.

Tribe Stenopterini Gistel, 1848

***Stenopterus rufus rufus* (Linnaeus, 1767)**
Castello Favone; Barrea; Rocca Tre Monti; Scanno; Cerchio; Lago di Barrea (Sakalian et al. 2020).
Chorotype: European.

Subfamily Lamiinae Latreille, 1825

Tribe Acanthocinini Blanchard, 1845

***Acanthocinus* (*Acanthocinus*) *xanthoneurus* (Mulsant and Rey, 1852)**
Monte Palombo; Pescasseroli; Barrea; Val Fondillo (Sakalian et al. 2020).
Chorotype: Endemic.

***Leiopus* (*Leiopus*) *nebulosus nebulosus* (Linnaeus, 1758)**
Pescasseroli (Sama 1988); S. Sebastiano dei Marsi, 1200 m a.s.l., 19.06.2011, 1 ex., leg. E. Migliaccio (EM).
Chorotype: European.

Tribe Agapanthiini Mulsant, 1839

***Agapanthia* (*Agapanthia*) *cardui* (Linnaeus, 1767)**
Barrea (Parenti 1964); Monte Greco, Barrea, Passo Godi, Pescasseroli (Sama 1988); Ortona dei Marsi, 900 m a.s.l., 20–23.06.2009; Roccagorga (Castel di Sangro), 800 m a.s.l., 20.06.2011; between Carrito and Aschi, 30.06.2011, 3 ex., leg. E. Migliaccio (EM).
Chorotype: European.

***Agapanthia* (*Epoptes*) *villosoviridescens* (DeGeer, 1775)**
Abruzzo National Park (Luigioni 1933); Valle fredda, Val Fondillo; Val Resione (Tassi 1961; Parenti 1962); Pescasseroli, Passo Godi, Monte Greco, Monte Marsicano, Gioia Vecchio (Sama 1988).
Chorotype: Eurosiberian.

***Agapanthia* (*Smaragdula*) *violacea* (Fabricius, 1775)**
Val Fondillo, Prato della Corte (Luigioni 1933); Abruzzo National Park (Grandi 1958); Fiume Sangro (Parenti 1964); Pescasseroli, Monte Greco, F. Sangro (Sama 1988); Cocullo, 06.05.1993–20.05.1995, 2 ex., leg. S. Cafaro (EM).
Chorotype: European-Anatolian.

***Calamobius filum* (Rossi, 1790)**
Pescasseroli (Parenti 1964); Monte Greco, Gioia Vecchio, Pescasseroli (Sama 1988); Pescasseroli, July 1957, 1 ex., leg. S. Cafaro; Ortona dei Marsi, 900 m a.s.l., 20–23.07.2009, 1 ex. (EM).
Chorotype: West Palaearctic.

Tribe Apodasyini Lacordaire, 1872

***Anaesthetis testacea testacea* (Fabricius, 1781)**
Assergi, Alfedena (Sama 1988).
Chorotype: European-Anatolian.

Tribe Dorcadionini Swainson, 1840

***Dorcadion* (*Cribridorcadion*) *arenarium marsicanum* Fracassi, 1905**
Cerchio, Campo di Giove, Monte Tranquillo, Pescasseroli, Forca Caruso, Prato la Corte, La Prata di Lecce (Sama 1988); Val Fondillo, 28.05.1999, 2 ex., leg. E. Migliaccio (EM).
Chorotype: Northmiddle Mediterranean.

***Dorcadion* (*Cribridorcadion*) *etruscum etruscum* (Rossi, 1790)**
Civitella Alfedena; Le Cese; Colle dei gatti; Colli Merini; Lago di Barrea; Cerchio; Ortona dei Marsi (Sakalian et al. 2020).
Chorotype: Endemic following the classification of Danilevsly (2021). Otherwise, a different treatment was proposed by Pesarini and Sabbadini (2007) who considered the species being present in Greece too.

Tribe Lamiini Latreille, 1825

***Herophila tristis tristis* (Linnaeus, 1767)**
Pescasseroli (Luigioni 1931); Valle Iannanghera; Lago di Barrea (Parenti 1964); Ortona dei Marsi, 1000 m a.s.l., July 2010 – July 2012, 8 ex., leg. E. Migliaccio (EM).
Chorotype: North Mediterranean.

***Lamia textor* (Linnaeus, 1758)**
Pescasseroli (Luigioni 1931); Tagliacozzo, Cerchio (Sama 1988); Tagliacozzo, July 1961, 1 ex., leg. G. Montelli (EM).
Chorotype: Transpalaearctic.

***Morimus asper asper* (Sulzer, 1776)**
Parco d'Abruzzo (Grandi 1958); Pescasseroli, Monte Tranquillo; Vallone Pesco di Lordo; Bosco Schiappito (Parenti 1962); Ortona dei Marsi, October 2010, 1 ex., leg. E. Migliaccio (EM).
Chorotype: North Mediterranean.

Tribe Mesosini Mulsant, 1839

***Mesosa* (*Aplocnemia*) *nebulosa nebulosa* (Fabricius, 1781)**
Pescasseroli, Monte Schiena Cavallo, Serra delle Gravare (Luigioni 1931, 1933); Monte Difesa (Sama 1988).
Chorotype: European-Anatolian.

Tribe Phytoeciini Mulsant, 1839

***Oberea* (*Oberea*) *oculata* (Linnaeus, 1758)**
Abruzzo National Park (Grandi 1958); Camosciara (Tassi 1961); Val Camosciara, Colle Licco (Parenti 1962); Villetta Barrea (Sama 1988); Val Camosciara, 28.07.1959; 02.08.1960, 5 ex., leg. E. Migliaccio (EM).
Chorotype: Transpalaearctic.

***Phytoecia* (*Musaria*) *affinis affinis* (Harrer, 1784)**
Prato della Corte (Luigioni 1933); Pescasseroli (Parenti 1964); Pescasseroli, Valle di Corte, Gioia Vecchio (Sama 1988).
Chorotype: European-Anatolian.

***Phytoecia* (*Musaria*) *tirellii* (Luigioni, 1913)**
Pescasseroli, Monte Sirente (Sama 1988).
Chorotype: Northeast Mediterranean.

***Phytoecia* (*Opsilia*) *coerulescens* (Scopoli, 1763)**
Pescasseroli, Val di Corte (Sama 1988); Cocullo, 12.06.1989, 1 ex., leg. S. Cafaro; between Trasacco and Collelongo, 28.05.2005, 1 ex., leg. R. Casalini (EM).
Chorotype: West Palaearctic.

***Phytoecia* (*Opsilia*) *molybdaena* (Dalman, 1817)**
Abruzzo National Park (Grandi 1958).
Chorotype: Transpalaearctic.

***Phytoecia* (*Phytoecia*) *cylindrica* (Linnaeus, 1758)**
Pescasseroli, Schiena Cavallo (Luigioni 1933); Abruzzo National Park (Grandi 1958); Lago di Barrea (Tassi 1960a); Passo del calvario (Parenti 1962); Pescasseroli, Val di Corte, Forca d'acero (Sama 1988); Abruzzo National Park, 07.1957, 1 ex., leg. S. Cafaro; Lago di Barrea, 25.06.2011; between Cesoli and Carrito, 27.06.2011, 2 ex., leg. E. Migliaccio (EM).
Chorotype: Eurosiberian.

***Phytoecia* (*Phytoecia*) *nigricornis* (Fabricius, 1782)**
Pescasseroli, Val Fondillo (Luigioni 1933); Monte Mattone (Parenti 1964; Tassi 1964a); Valle di Corte, S. Sebastiano, Forca d'acero (Sama 1988).
Chorotype: Eurosiberian.

***Phytoecia* (*Phytoecia*) *pustulata pustulata* (Schrank, 1776)**
Prato di Corte (Luigioni 1933); Pescasseroli (Sama 1988).
Chorotype: European-Iranoturanian.

***Phytoecia* (*Phytoecia*) *rufipes rufipes* (Olivier, 1795)**
Val Fondillo (Sama 1988).
Chorotype: Transpalaerctic.

***Phytoecia* (*Phytoecia*) *vulneris vulneris* Aurivillius, 1923**
Cerchio, Monte Greco (Sama 1988).
Chorotype: North Mediterranean.

Tribe Pogonocherini Mulsant, 1839

***Pogonocherus* (*Pityphilus*) *fasciculatus fasciculatus* (De Geer, 1775)**
Pescasseroli (Tassi 1963; Parenti 1964).
Chorotype: Transpalaearctic.

***Pogonocherus* (*Pogonocherus*) *hispidus* (Linnaeus, 1758)**
Prato della Corte (Luigioni 1933).
Chorotype: Euromediterranean.

Tribe Saperdini Mulsant, 1839

***Saperda* (*Lopezcolonia*) *scalaris scalaris* (Linnaeus, 1758)**
Pescasseroli; Val di Sangro (Sakalian et al. 2020).
Chorotype: Euromediterranean.

***Saperda* (*Saperda*) *carcharias* (Linnaeus, 1758)**
Vitelletta Barrea (Tassi 1961); Pescasseroli (Parenti 1962); Pescasseroli, Valle di Corte (Sama 1988).
Chorotype: Transpalaearctic.

***Stenostola ferrea ferrea* (Schrank, 1776)**
Monte Sirente (Sakalian et al. 2020).
Chorotype: European-Anatolian.

Tribe Tetropini Portevin, 1927

***Tetrops praeustus praeustus* (Linnaeus, 1758)**
Villetta Barrea (Sama 1988).
Chorotype: Transpalaearctic.

The identified taxa belong to 21 areographical categories (chorotypes) combined in 7 complexes (Table 1).

The European complex occupies a dominant position (39.1%), followed by the Palaearctic (24.2%), Mediterranean (14.1%), Eurosiberian (10.2%), European-Iranoturanian (6.3%), Endemic (3.9%) and Cosmopolitan and Holarctic (2.3%) complexes (Fig. 1).

Table 1. Areogeographic characterization of buprestid, vesperid and cerambycid species in Abruzzo, Lazio and Molise National Park

Areographic categories and complexes	Buprestidae		Vesperidae, Cerambycidae		Total	
	N	%	N	%	N	%
Cosmopolitian and Holarctic complex	**1**	**2.0**	**2**	**2.5**	**3**	**2.3**
Cosmopolitan	-	-	1	1.3	1	0.8
Transholarctic	1	2.0	1	1.2	2	1.5
Palaearctic complex	**15**	**30.7**	**16**	**20.3**	**31**	**24.2**
Transpalaearctic	7	14.3	11	13.9	18	14.1
West Palaearctic	3	6.2	4	5.1	7	5.5
Southwest Palaearctic	5	10.2	1	1.3	6	4.7
Eurosiberian complex	**2**	**4.0**	**11**	**13.9**	**13**	**10.2**
Eurosiberian	1	2.0	7	8.8	8	6.3
West Eurosiberian	1	2.0	4	5.1	5	3.9
European-Iranoturanian complex	**2**	**4.0**	**6**	**7.6**	**8**	**6.3**
European-Iranoturanian	1	2.0	1	1.3	2	1.6
European-Iranian	1	2.0	5	6.3	6	4.7
European complex	**18**	**34.8**	**32**	**40.5**	**50**	**39.1**
Euromediterranean	10	20.4	10	12.7	20	15.6
European-Anatolian	2	4.1	14	17.7	16	12.5
Easteuropean-Anatolian	1	2.1	-	-	1	0.8
European	4	8.2	8	10.1	12	9.4
West European	1	2.0	-	-	1	0.8
Mediterranean complex	**8**	**16.3**	**10**	**12.7**	**18**	**14.1**
Transmediterranean	1	2.0	2	2.5	3	2.3
North Mediterranean	-	-	4	5.1	4	3.1
Northmiddle Mediterranean	1	2.0	1	1.3	2	1.6
East Mediterranean	1	2.0	-	-	1	0.8
Northeast Mediterranean	2	4.1	3	3.8	5	3.9
Southwest Mediterranean	1	2.1	-	-	1	0.8
Pontomediterranean	2	4.1	-	-	2	1.6
Endemic complex	**3**	**6.1**	**2**	**2.5**	**5**	**3.9**
Italian endemics	3	6.1	2	2.5	5	3.9
Total	**49**	**100.0**	**79**	**100.0**	**128**	**100.0**

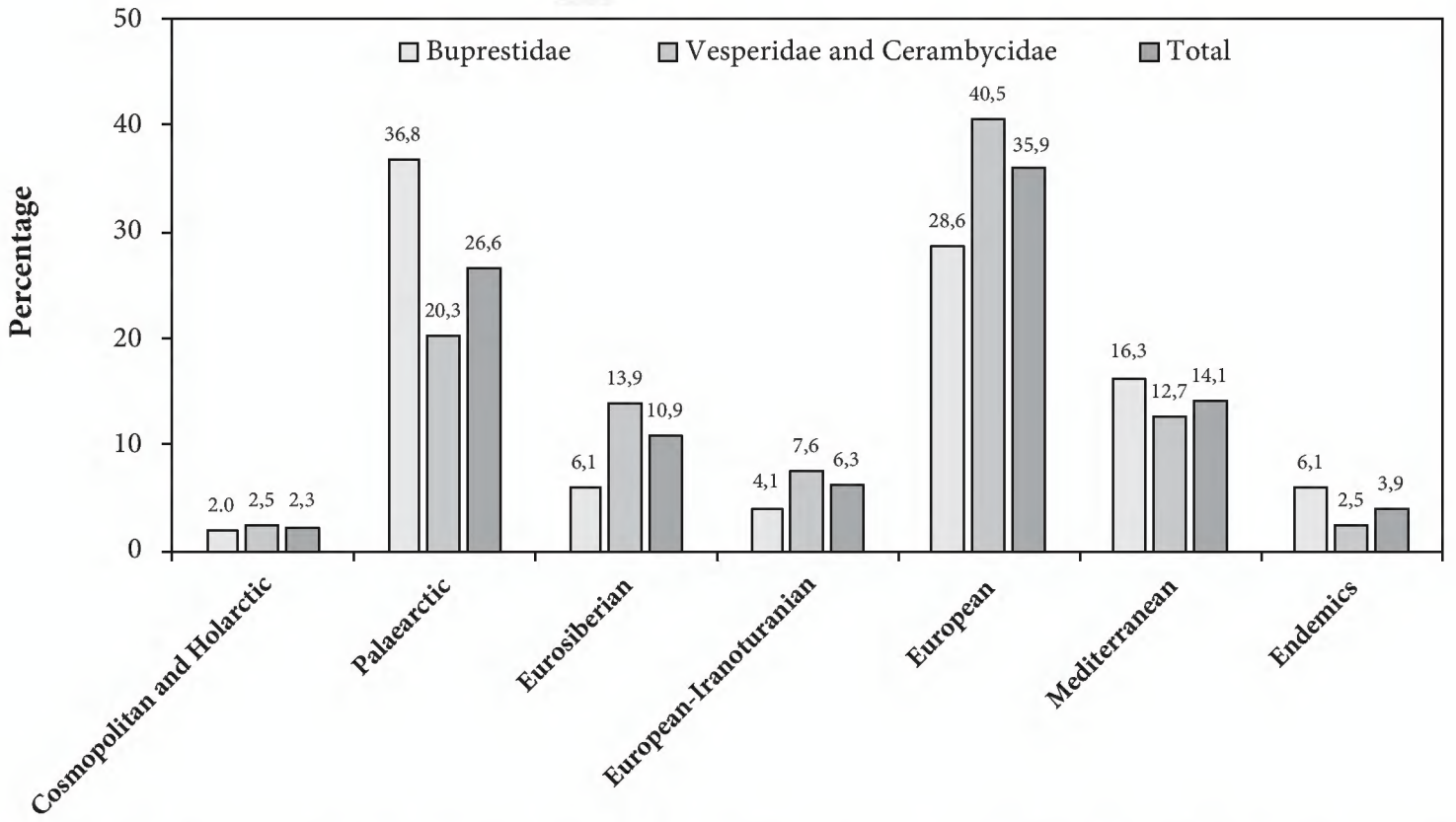

Figure 1. Areographic complexes of buprestid, vesperid and cerambycid species in Abruzzo, Lazio and Molise National Park

Discussion

Following the study on the species richness and distribution of Buprestidae, Vesperidae and Cerambycidae in the Abruzzo, Lazio and Molise National Park, a total of 128 species and subspecies were found so far but we can expect that future investigations will increase the number of currently known taxa. However, the high biodiversity level, around 24% of all buprestids known for Italy – 208 (Curletti et al. 2003), around 26% of all known cerambycids – 296 (Sama and Rapuzzi 2011), and 25% of the four vesperid taxa (Danilevsky 2021), points to the favorable ecological conditions inside the Park territory for these beetle taxa.

According to the areographic analyses the species and subspecies of the European complex are dominant (39.1%), and are connected with the deciduous forests which cover the largest part of the National Park territory. This considerable domination is mainly due to the Cerambycidae, with 32 taxa (40.5%). Secondly, there are species and subspecies belonging to Palaearctic complex (24.2%). These more euribiont taxa, with broad areas of distribution, normaly are better represented in the high mountains, because of the harsh climatic conditions there. In this complex, on the contrary, buprestids are better represented (30.7%), followed by cerambycids (20.3%). Very closely, on the third and fourth position are the taxa belonging to the Medditerranean and Eurosiberian complexes. In the first complex the buprestids are better represented (as a more xerophilic group), and in the second – the cerambycids. In the lower parts and along the rivers climatic conditions allows the penetration of the Mediterranean

species and subspecies, while the high areas, especially those covered by coniferous trees, are favorable for distribution of the Eurosiberian taxa.

Similar aerographic characteristics concern the Cerambycidae from Vitosha, in Bulgaria, where the European taxa take the first place, followed by the Palaearctic, Eurosiberian and Mediterranean taxa with relatively equal representation (Topalov 2018). Vitosha with its elevation, oreographic patterns and vegetation is similar to Abruzzo, Lazio and Molise National Park.

Abruzzo, Lazio and Molise National Park has four endemic and one subendemic taxa: two Italian endemic buprestids (*Anthaxia helvetica apennina* and *Anthaxia liae*), two endemic cerambycids (*Acanthocinus xanthoneurus* and *Dorcadion etruscum etruscum*), and one subendemic buprestid (*Anthaxia scylla* present in Italy and Malta).

In conclusion, it is possible that new taxa from Buprestidae, Vesperidae and Cerambycidae families could be expected in future investigations on the territory of Abruzzo, Lazio and Molise National Park.

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